REMARKS

This amendment is in response to the non-final Office Action mailed on November 18, 2010. All objections and rejections are respectfully traversed.

Claims 1, 28, 31, and 45 have been amended to better claim the invention. No new matter is added by way of this response.

On entry of this amendment, claims 1-50 are currently pending in the application.

Reconsideration and further examination of the application, as amended, is hereby requested.

I. Claim Rejections Under 35 U.S.C. §101

In the Office Action, the Examiner rejects claims 1-11, 28-36, and 45-50 under 35 U.S.C. §101 because the Examiner believes that the claims are directed to non-statutory subject matter. See Office Action at pages 2-4. In order to expedite prosecution, Applicants amend independent claims 1, 28, and 45 to recite a non-transitory computer-readable medium. Applicants respectfully urge that this amendment addresses the Examiner's concerns, and respectfully request that the above §101 rejection be reconsidered and withdrawn.

II. Claim Rejections under 35 U.S.C. §112

A. Rejections under 35 U.S.C. §112, Second Paragraph

In the Office Action, the Examiner rejects claims 1-50 under 35 U.S.C. §112, second paragraph, because the Examiner believes that the claim terms are unclear. See Office Action at pages 4-5. Specifically, the Examiner argues that the phrase ***persistently storing a simulation context of the simulation by registering an area of memory that constitutes the simulation context … the persistently storing making the simulation context available after the simulation finishes so that the simulation may be restored to a state consistent with the simulation context***, as present in claims, is unclear. Applicants respectfully traverse the rejection.

The Examiner argues that this claim term is unclear for two reasons. First, the Examiner argues that "the specification does not provide a limiting definition for 'persistently' storing data such that the technical scope of this limitation is well defined. Therefore it is unclear what limitation of the claimed method is intended by 'persistently storing a simulation context." See Office Action at page 5.

Solely in order to expedite prosecution, Applicants amend the claims to remove the word "persistently." Applicants respectfully urge that this amendment addresses the Examiner's above concern.

Second, the Examiner argues that "it is unclear what limitation of the claimed process is intended by '... so that the simulation may be restored to a state consistent with the simulation context.'" Specifically, the Examiner asks "is this an active method step (e.g., restoring a simulation ...), a limitation of how the simulation context is stored, or an intended use?" See Office Action, page 5.

The quoted claim feature clarifies the term "storing." Whatever else may be done to store the data, the storing at least ***makes the simulation context available after the simulation finishes so that the simulation may be restored to a state consistent with the simulation context***. That is, the "storing" of the context: (1) makes the context *available after the simulation finishes* and (2) makes the context available in a manner that allows the simulation to be *restored to a state consistent with the simulation context.*

A claim may be considered "vague and indefinite" under 35 U.S.C. §112 "if the language of the claim is such that a person of ordinary skill in the art could not interpret the metes and bounds of the claim so as to understand how to avoid infringement." MPEP at §2173.02; See also *Morton Int'l, Inc. v. Cardinal Chem. Co.*, 5 F.3d 1464, 1470, 28 USPQ2d 1190, 1195 (Fed. Cir. 1993). Applicants respectfully urge that this is not the case in the present claims. Applicants urge that one of ordinary skill in the art would readily understand what is meant by the claim features.

The Examiner appears to reject the claims because the purpose of the phrase ***the storing making the simulation context available after the simulation finishes so that***

the simulation may be restored to a state consistent with the simulation context in the claim is unclear to him (i.e., is the phrase meant to be an "intended use," an "active method step," etc.). However, the clarity of the claim terms is evaluated under §112, not the clarity of the reason that the terms are in the claim. Applicants respectfully urge that the meaning of the above-quoted phrase is clear: the persistent storage stores the simulation context in a way that makes the context available after the simulation finishes and allows the simulation to be restored to a state consistent with the stored context.

Applicants respectfully direct the Examiner's attention to MPEP §2173.02: *the examiner's focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. 112, second paragraph, is whether the claim meets the threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available.* Applicants respectfully urge that the pending claims meet the requirements of 35 U.S.C. §112 for clarity and precision.

For at least the reasons set forth above, Applicants respectfully urge that the terms used in the claims are clear and definite. Therefore, Applicants respectfully request that the above 35 U.S.C. §112 rejection of claims 1-50 be withdrawn.

B. Rejections under 35 U.S.C. §112, First Paragraph

In the Office Action, the Examiner rejects claims 1-50 under 35 U.S.C. §112, first paragraph, because the Examiner believes that the claims do not comply with the written description requirement. See Office Action at page 6. Specifically, the Examiner argues that the pending claims recite *persistently storing a simulation context of the simulation by registering an area of memory that constitutes the simulation context*, and "no support for the term 'persistently' storing a simulation has been found in the specification, drawings, or claims of the application as originally [filed]." Applicants respectfully traverse the rejection.

Solely in order to expedite prosecution, Applicants amend the claims to remove the word "persistently." Accordingly, Applicants respectfully request that the above 35 U.S.C. §112 rejection of claims 1-50 be withdrawn.

III. Claim Rejections Under 35 U.S.C. § 103

A. Claims 1-3, 5-14, 16-23, 25-30, and 32-36

In the Office Action, claims 1-3, 5-14, 16-23, 25-30, and 32-36 stand rejected under 35 U.S.C. § 103(a) because the Examiner believes these claims are unpatentable in view of International Application Publication No. WO 02/099736 by Lett (hereafter "Lett") in view of *The Design of a Simulation System for Persistent Object Storage Management* (University of Colorado, March 1993) by Cook (hereafter "Cook"), and in further view of U.S. Patent No. 6,311,265 to Beckerle, *et al.*, hereinafter "Beckerle." See Office Action at page 7. Applicants respectfully traverse this rejection.

Applicants respectfully urge that Lett, Cook, and Beckerle, taken either singly or in any reasonable combination, fail to disclose or suggest all of the features of claims 1-3, 5-14, 16-23, 25-30, and 32-36. For example, neither Lett, Cook, nor Beckerle disclose or suggest at least, ***storing a simulation context of the simulation by registering an area of memory that constitutes the simulation context, the simulation context comprising one or more values for one or more attributes, the one or more values being established during the simulation of the block diagram model, the storing making the simulation context available after the simulation finishes so that the simulation may be restored to a state consistent with the simulation context***, which is present in claims 1-3, 5-14, 16-23, 25-30, and 32-36.

The Examiner recognizes that Lett does not disclose or suggest ***storing a simulation context of the simulation ...*** See Office Action at page 10. Instead, the Examiner relies upon Cook and Beckerle for disclosing this feature of the claims. Although Cook and Beckerle briefly discuss persistent storage, they fail to disclose or suggest storing ***a simulation context***, as present in the claims. Furthermore, the "storage" of the present claims is accomplished in a particular way, ***by registering an area of memory that constitutes the simulation context.*** Neither reference discloses or suggests storing anything in this way. These points are addressed in more detail below.

Cook describes a simulation for evaluating a persistent object storage management system. That is, given a preexisting system that persistently stores objects, Cook is interested in evaluating how efficient the persistent object storage management algorithm (e.g., garbage collection) operates. See Cook at page 1, §1, first paragraph. Cook notes that, traditionally, persistent object storage management algorithms have been evaluated in three ways: (1) prototyping; (2) analytically; and (3) using a simulation of the algorithm. See Cook at page 3, §2. Cook describes a new simulation method for evaluating the efficiency of these algorithms. See Cook at page 4, §2, final paragraph.

Although Cook mentions a "simulation system" and "persistent" object storage, he does so with respect to evaluating an effectiveness of a object deletion algorithm that may be used to by a simulation system to delete persistent objects. Nowhere does Cook disclose ***storing a simulation context***.

That is, Cook addresses evaluating the deletion of a previously stored object in an environment that persistently stores such objects. Specifically, Cook evaluates a garbage collection algorithm (see Cook at page 2, final paragraph), which involves the freeing of memory when a persistently stored object is deleted by a program. Cook is not concerned with storing/restoring the context of the simulation, but instead is only interested in the final result of the simulation: i.e., "how effective is the object deletion algorithm?" Thus, Cook does not store a simulation context, but rather evaluates an algorithm when a previously-stored object is eliminated.

The addition of Beckerle fails to cure the factual deficiencies of Lett and Cook with respect to this feature. Beckerle describes apparatuses and methods for programming parallel computers. As the Examiner correctly notes at pages 10-11 of the Office Action, Beckerle states that a graph may use a "persistent data set" and further discusses "repeatedly storing and reading data to a disk." However, Beckerle does not disclose or suggest storing a simulation context as described in the present claims.

Furthermore, Lett, Cook, and Beckerle fail to disclose or suggest ***storing a simulation context of the simulation by registering an area of memory that constitutes the simulation context***. Lett does not disclose or suggest this feature of the claims, as

recognized by the Examiner at page 10 of the Office Action. The addition of Cook and Beckerle fail to cure the factual deficiencies of Lett with respect to this feature.

As noted above, Cook is addressed to the deletion of a persistently stored object. Although Cook notes that objects can also be created, Cook is silent with respect to how the persistent storage may be carried out. Accordingly, Cook does not disclose ***storing a simulation context of the simulation by registering an area of memory that constitutes the simulation context***.

The Examiner argues that Cook discusses memory registration at §3.1, pages 6-7, and Table 1. See Office Action at page 10. The cited passages describe the "Storage Allocator" of Lett, which "is responsible for knowing what regions of disk/memory are free (and conversely, allocated) and deciding how to allocate the available space when an object creation request is received." Accordingly, this passage does not describe the registry of an area of memory that already constitutes a simulation context (which comprises values established during the simulation), but rather addresses the separate idea of allocating space for a persistent object to occupy in the future.

Beckerle states that a graph may use a persistent data set and may repeatedly store data to a disk. However, Beckerle does not describe registering an area of memory that constitutes a simulation context in order to achieve the persistent storage. Beckerle is silent with respect to this feature of the claims.

For at least the reasons set forth above, Applicants respectfully urge that Lett, Cook, and Beckerle, taken either singly or in any reasonable combination, fail to disclose or suggest all of the features of claims 1-3, 5-14, 16-23, 25-30, and 32-36. Therefore, Applicants respectfully request that the above 35 U.S.C. § 103(a) rejection of claims 1-3, 5-14, 16-23, 25-30, and 32-36 be withdrawn.

B. Claims 4, 15, 24, 31, and 37-50

In the Office Action, claims 4, 15, 24, 31, and 37-50 stand rejected under 35 U.S.C. § 103(a) because the Examiner believes these claims are unpatentable in view of Lett, Cook, and Beckerle and in further view of International Patent Application No. WO

2003/042857 to Fox (hereafter "Fox"), and further in view of U.S. Patent No. 6,882,940 to Potts (hereafter "Potts"). See Office Action at page 11. Applicants respectfully traverse this rejection.

Applicants respectfully urge that Lett, Cook, Beckerle, Fox, and Potts, taken either singly or in any reasonable combination, fail to disclose or suggest all of the features of claims 4, 15, 24, 31, and 37-50. For example, neither Lett, Cook, Beckerle Fox, nor Potts disclose or suggest at least, ***storing a simulation context of the simulation by registering an area of memory that constitutes the simulation context, the simulation context comprising one or more values for one or more attributes, the one or more values being established during the simulation of the block diagram model, the storing making the simulation context available after the simulation finishes so that the simulation may be restored to a state consistent with the simulation context,*** which is present in claims 4, 15, 24, 31, and 37-50.

Claims 4, 15, 24, 31, and 37-50 depend from claims 1, 12, 22, and 28, respectively; independent claims 37 and 45 each include ***storing a simulation context of the simulation by registering an area of memory that constitutes the simulation context, the simulation context comprising one or more values for one or more attributes, the one or more values being established during the simulation of the block diagram model, the storing making the simulation context available after the simulation finishes so that the simulation may be restored to a state consistent with the simulation context***, and claims 38-44 and 46-50 depend from claims 37 and 45, respectively. Each dependent claim therefore includes all of the features of its respective parent claim.

As a result, the combination of Lett, Cook, Beckerle, Fox, and Potts must support a valid 35 USC 103 rejection of claims 1, 12, 22, 28, 37, and 45 in order to support a rejection of dependent claims 4, 15, 24, 31, and 37-50. As previously discussed in connection with claim 1, Lett, Cook, and Beckerle do not disclose or suggest ***storing a simulation context of the simulation by registering an area of memory that constitutes the simulation context, the simulation context comprising one or more values for one***

or more attributes, the one or more values being established during the simulation of the block diagram model, the storing making the simulation context available after the simulation finishes so that the simulation may be restored to a state consistent with the simulation context ~~as required by~~ which is present in claims 1, 12, 22, 28, 37, and 45.

Combining reference Fox and Potts with references Lett Cook, and Beckerle does nothing to remedy the shortcomings of references Lett Cook, and Beckerle with respect to supporting a §103 rejection of claims 1, 12, 22, 28, 37, and 45.

Fox is generally concerned with methods for inferring a network model of the interactions of biological molecules (Fox at Abstract). Fox is not concerned with a simulation context, and does not disclose ***storing a simulation context of the simulation by registering an area of memory that constitutes the simulation context, the simulation context comprising one or more values for one or more attributes, the one or more values being established during the simulation of the block diagram model, the storing making the simulation context available after the simulation finishes so that the simulation may be restored to a state consistent with the simulation context***, as recited in independent claims 1, 12, 22, 28, 37, and 45. Indeed, the Examiner relies on Fox only for "alternatively modeling a chemical reaction" (Office Action at pages 5-6).

Potts is generally concerned with monitoring, for example, glucose values in order to predict a hypoglycemic event in a subject (Potts at Abstract). Accordingly, Potts is not concerned with a simulation context, and does not disclose ***storing a simulation context of the simulation by registering an area of memory that constitutes the simulation context, the simulation context comprising one or more values for one or more attributes, the one or more values being established during the simulation of the block diagram model, the storing making the simulation context available after the simulation finishes so that the simulation may be restored to a state consistent with the simulation context***, as recited in independent claims 1, 12, 22, 28, 37, and 45. Indeed, the Examiner relies on Potts only for user-settable thresholds and functionality for generating an alert when the thresholds are exceeded (Office Action at pages 5-6).

Therefore, Lett, Cook, Beckerle, Fox, and Potts, whether taken alone or in any reasonable combination, do not disclose or suggest all of the features of claims 1, 12, 22, 28, 37, and 45 or of dependent claims 4, 15, 24, 31, and 37-50. Therefore, Lett, Cook, Beckerle, Fox, and Potts cannot support a valid 35 USC §103 rejection of independent claims 1, 12, 22, 28, 37, and 45 or of claims depending from claims 1, 12, 22, 28, 37, and 45, namely claims 4, 15, 24, 31, and 37-50. In view of the above remarks, reconsideration and allowance of dependent claims 4, 15, 24, 31, and 37-50 is respectfully requested.

IV. Double Patenting Rejections

In the Office Action, claims 1, 12, 22, and 28 are provisionally rejected on the ground on non-statutory obviousness-type double patenting as being unpatentable over claims 1, 2, and 3 of copending Application No. 10/783,552 in view of Lett and Cook. See Office Action at page 14.

As the final form of the claims in the instant application has yet to be ascertained, Applicants respectfully urge that the above double patenting rejections are premature. Therefore, Applicants request that the above double patenting rejections be withdrawn or held in abeyance. If a terminal disclaimer is still deemed necessary after the final form of the claims in the instant application has been ascertained, Applicants will file a terminal disclaimer accordingly.

CONCLUSION

In view of the foregoing claim amendments and remarks, Applicants believe that all claims should be passed to allowance. Should the Examiner feel that a teleconference would expedite the prosecution of this application, the Examiner is urged to contact the Applicants' attorney at (617) 573-4700.

As Applicants' remarks with respect to the Examiner's rejections and/or objections overcome the rejections and/or objections, Applicants' silence as to certain assertions by the Examiner in the Office Action or certain requirements that may be applicable to such rejections and/or objections (e.g., whether a reference constitutes prior art, reasons to modify a reference and/or combine references, assertions as to dependent claims) is not a concession by Applicants that such assertions are accurate or that such requirements have been met, and Applicants reserve the right to dispute these assertions/requirements in the future.

Please charge any shortage or credit any overpayment of fees to our Deposit Account No. 12-0080, under Order No. MWS-109RCE2. In the event that a petition for an extension of time is required to be submitted herewith, and the requisite petition does not accompany this response, the undersigned hereby petitions under 37 C.F.R. § 1.136(a) for an extension of time for as many months as are required to render this submission timely. Any fee due is authorized to be charged to the aforementioned Deposit Account.

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Respectfully submitted,

By /Neslihan I. Doran/

Registration No.: 64,883
Nelson Mullins Riley and Scarborough, LLP
One Post Office Square
Boston, Massachusetts 02109-2127
(617) 573-4700
(617) 742-4214 (Fax)
Attorney/Agent For Applicants